

What is claimed is:

1. Mobile terminal equipment having a packet communication function and a communication route optimizing function according to a mobile IP (Internet Protocol), comprising

a session controller for setting a session between terminals in accordance with a session control message of a protocol different from the mobile IP,

10 the session controller having means for executing, when a session control message from the other party is received in a visited network apart from a home network of the mobile IP, optimization of a communication route to the other party by said communication route optimizing function before  
15 sending a response message for the session control message.

2. The mobile terminal equipment according to  
20 claim 1, wherein said session controller specifies an IP address of said other party from said session control message received in the visited network and executes optimization of a communication route to the IP address by said optimizing function.

3. The mobile terminal equipment according to claim 1, further comprising:

means for storing a home address of the mobile IP preliminarily assigned and an identifier of the mobile terminal equipment to be used in said session control;

means for notifying, when an IP care of address which becomes necessary for receiving mobile IP packets is obtained in the visited network, a first server operating as a mobile IP home agent of a correspondence relation between said IP care of address and the home address; and

means for notifying a second server for session control of a correspondence relation between said mobile terminal identifier and the home address,

wherein a session control message packet transmitted from said other party to said second server is transferred from said second server to said first server in accordance with said home address, and transferred to the mobile terminal equipment in the visited network in accordance with said IP care of address stored in the first server.

4. The mobile terminal equipment according to claim 1, wherein said mobile IP protocol is an IPv6

protocol, and said session control message is according to an SIP (Session Initiation Protocol) specified in IETF RFC3261.

5 5. The mobile terminal equipment according to any of claim 1, wherein said mobile IP protocol is an IPv6 protocol, and said session control message is according to ITU-T recommendation H.323.

10 6. A packet communication method between first and second terminals each having a packet communication function and a communication route optimizing function according to a mobile IP (Internet Protocol), comprising the steps of:

15 transmitting a session control message from said second terminal to said first terminal when said first terminal exists in a visited network apart from a mobile IP home network;

executing a communication procedure for  
20 optimizing a communication route to said second terminal by said first terminal on reception of said session control message; and

transmitting a response message for said session control message from said first terminal  
25 after completion of optimization of said

communication route,

wherein said first and second terminals communicate data packets generated after completion of the session control through said optimized  
5 communication route.

7. The packet communication method between terminals according to claim 6, wherein the session control message sent from said second terminal is  
10 transferred to said first terminal via a second server for session control and a first server operating as a mobile IP home agent of said first terminal, and

said response message sent from said first  
15 terminal is transferred to said second terminal via said first and second servers.

8. The packet communication method between terminals according to claim 7, wherein when said  
20 first terminal obtains an IP care of address necessary for receiving mobile IP packets in the visited network, said first terminal notifies said first server of a correspondence relation between a home address of the first terminal and said care  
25 of address, and notifies said second server of a

correspondence relation between a terminal identifier and the home address of the first terminal,

said second terminal transmits the session  
5 control message designating the identifier of said first terminal to said second server,

the second server transfers said session control message to the home address of said first terminal, and said first server intercepts said  
10 session control message and transfers the session control message to said care of address.

9. The packet communication method between terminals according to claim 8, wherein said second  
15 server sends said session control message in an IP packet form including the home address of said first terminal as a destination IP address, and

said first server encapsulates the IP packet including said session control message received from  
20 said second server with an IP header including the care of address of said first terminal as a destination address, and transfers the encapsulated IP packet to said first terminal.

25 10. The packet communication method between

terminals according to claim 8, further comprising the step of obtaining by said second server a correspondence relation between the home address and the care of address of said first terminal from said  
5 first server,

wherein said second terminal sends said session control message in an IP packet form including the address of said second server as a destination IP address, and

10 said second server transfers to said first terminal the IP packet including the session control message received from said second terminal in a form encapsulated with an IP header including the care of address of said first terminal as a destination  
15 address.

11. The packet communication method between terminals according to claim 10, further comprising the step of notifying to said second server, from  
20 said first server notified of the correspondence relation between the home address and the care of address from said first terminal, of a correspondence relation between the home address of said first terminal and a home agent IP address of said first  
25 server,

wherein said second server specifies said first server on the basis of the home agent IP address and performs communication to obtain a correspondence relation between the home address and the care of  
5 address of said first terminal.